

5th Grade Science Study Guide
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Vocabulary:

Ecosystem – interaction of organisms with their physical environment

Organism – living things

Energy Pyramid – a diagram showing the loss of energy at each feeding level

Trophic Level – the levels on an energy pyramid are called trophic levels

Consumer – an organism that gets its energy (food) by eating another organism

Producer – an organism that uses the sun's energy to make its own food

Carnivore – a consumer that eats other consumers

Herbivore – a consumer that eats producers

Omnivore – a consumer that eats both consumers and producers

Competition – relationship between two or more organisms in which they compete for resources (shelter, food, water, mates, etc)

Predation – relationship between organisms in which one organism eats the other organism for food.

Symbiosis – relationship (usually long term) between two organisms in which at least one benefits

Mutualism – symbiotic relationship in which both organisms benefit from the interaction

Parasitism – symbiotic relationship in which one organism benefits while harming the other organism

Commensalism – symbiotic relationship in which one organism benefits while the other organism is neither harmed nor benefited.

Understandings and skills:

Be able to draw a food web to show the transfer of energy between organisms.

Be able to identify producers, consumers, and decomposers in a food web.

Be able to draw an energy pyramid to show the transfer of energy in an ecosystem.

Know the rule of 10. Only 10% of the energy in an energy pyramid is passed on to the next trophic level. (example: Only 10% of the energy produced from grass is passed on to the cow that eats it. Only 10% of the energy a cow consumes is passed on to the farmer who eats it.)

Describe and give examples of the three types of interactions between organisms discussed in class (competition, predation, symbiosis).

Describe and give examples of three types of symbiosis (mutualism, parasitism, commensalism).

Explain how interrelationships between organisms enable some organisms to survive.

Explain how human influences may help or harm ecosystems.

Explain how natural events (i.e. flooding, overpopulation) can help or harm ecosystems.